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SECOND LECTURE

ON

Agnosticism

BY

The Right Rev., The Lord Bishop of Ontario.

A SECOND LECTURE

ON

AGNOSTICISM

BY THE

LORD BISHOP OF ONTARIO

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AGNOSTICISM.

LECTURE II.

 LECTURE of mine on Agnosticism has been criticised in a pamphlet styled *A Defence of Modern Thought*. On perusing it I was unable to find out what the *modern* thought is which the writer is defending. He agrees with me that "Agnostic" is an unfortunate name for those like himself who believe that the existence of God is a problem that does not admit of solution. Agnosticism, in that sense, is not modern. It has existed in all ages. Neither is the hypothesis of Evolution, to which I attributed the recent popularity of Agnosticism, modern. It is as old as Democritus and Lucretius.

I accounted for the rather sudden outburst of all that is implied by Agnosticism by saying that Evolution led to Materialism, and Materialism to Agnosticism, some men believing Darwinism a deliverance from the necessity of a Creator, though Darwin himself postulated a Creator to begin his hypothesis.

I am glad to find that my critic agrees with me in my suspicion that Agnostic ethics are not of a kind to inspire some men with the "courage necessary to take up a decided position." We can scarcely bring ourselves to admire the principles of men who, while holding to Agnostic belief, act as though expediency justified hypocrisy, and therefore advise conformity to the usages of religion. God and Immortality, say they, are rationally untenable, but we cannot do without them. They are necessary for the present till the world is better educated. Religious beliefs are useful ; Mr. Herbert Spencer says, " We cannot avoid the inference that they are needful accompaniments of human life." They should have the "widest possible toleration" ; and again, " As certainly as a barbarous race needs a harsh terrestrial rule, and habitually shows attachment to a despotism capable of the necessary rigour, so certainly does such a race need a belief that is similarly harsh, and habitually shows attachment to such a belief." * That is to say, the false is necessary for the elucidation of the true. You cannot get men to act as they should, without deceiving them. We have heard a good deal about the unworthy tricks of Divines in dressing up phantoms in order to frighten mankind and keep them under priestly influence, but now we have one of the most eminent Philosophers of the day, himself no friend to Revelation, informing us that it is the only way to deal with men whose mental development is

* *First Principles*, pp. 119-122.

imperfect. † My critic seems to agree with Mr. Spencer's ethical teaching; for he says, "There are many lines of argument which can be used to prove how natural and how *serviceable* in many ways is, or has been, the thought of God as the Universal Father, the source of all good and of all law"; and again, "Let the mind therefore, we say, weave freely for itself such conceptions *as for the moment are serviceable*, and let it be free to *modify them* with the growth of knowledge, and the increasing definitiveness of thought." Truly a melancholy basis of ethics in the nineteenth century!

But my critic is so dissatisfied with the name of Agnostic that he advises all earnest men who think more of their beliefs than their unbeliefs to disown it. He seems to forget that the name is not a nickname given by opponents, but by a sincere friend and champion of Agnosticism, Professor Huxley, who borrowed it from a heathen altar at Athens, the inscription on which was, "To the Unknown God"—*Ἀγνώστῳ θεῷ*.

And here I must observe that my critic ought to have known that it is beneath the dignity of a scientific writer to impute motives, particularly that of "manœuvring," and of using a "controversial artifice of an unfair kind." I am accused of standing forth simply as the champion of the two great doctrines of God and Immortality, but that in reality I am the champion of much more. "The manœuvre is first to make a formidable demonstration as champion of two cardinal doctrines

† Transactions of Vic. Inst., Vol. 17, p. 119.

which in themselves arouse little opposition even when they do not command assent, and then to apply the results of the proceeding to the benefit of those parts of the system which had been kept in the background"; and it is said to my discredit, that "what I have at heart is that men may believe as I do." I wonder what my critic has at heart when *he* writes a pamphlet; but whatever I had at heart, I certainly had no such design as that imputed to me, as I was not so foolish as to believe that the two tenets, God and Immortality, led necessarily up to that "elaborate theological system of which I am exponent." He says that I "do not profess that these doctrines can stand by themselves apart from a belief in revelation." Of course I did not profess that they could, because all the world knows that they can. I admit that it is much easier to make a theist a Christian, than to make an atheist one. But I did not forget that a large proportion of the human race, such as Jews and Mahomedans, believe in God and Immortality, and yet cannot be led on to accept Christianity.

In fact, so little was the "elaborate system of which I am exponent" present to my mind, that I argued as if Christianity were not in existence. Well then, why does my critic, knowing this as well as I do, attribute to me sinister motives? Simply that he might have a pretext for introducing into his pamphlet a sneer at miracles and "Hebrew legends of a most monstrous kind." That this was his object is evident, because I alluded to miracles only once, and that was to suggest that they may have

been in accordance with natural laws, though they proved superhuman knowledge of those laws. As to the "monstrous Hebrew legends," I dealt with but one of them,—“In the beginning God created the heaven and the earth.” But because I did not treat of others, is this one not to be discussed or believed? In my treatment of it, any reference to the other “legends” he mentions, so far from being “in order,” would have been as much out of place as a defence of the Crusades.

My critic quite misapprehends my object when he says, that “in arguing against the doctrine of Evolution, I labour to establish the opposite doctrine of the creation and government of the world by miracle.” I was labouring for nothing of the kind. While I do believe in the creation and government of the world by God, my main object was to show that Evolution was as yet a mere hypothesis—I might have said a scientific romance—and I considered that it was useful to make this known, because men were building too much upon it,—putting it, in fact, in the place of a Creator. Miracle as such did not engage my thoughts at all, because I regard Evolution quite as great a miracle as Creation. So far as miracle is concerned, the legend might as well have read thus: “In the beginning God *evolved* the heaven and the earth.” I can no more imagine an evolution without an Evolver, than I can a creation without a Creator. My object was to remind my hearers that what multitudes were taking for granted was untrue, or at least unproved.

We live in an age of intellectual terrorism when men are afraid and ashamed of being thought unscientific. Even religious people bow down too much to the conjectures of science. Only utter the words, "all scientific men are agreed," and people will swallow almost anything. I therefore instanced great scientists who did *not* believe that man was evolved from the ape by natural selection, and among them Sir C. Lyell. In doing so, I made a mistake. I ought to have borne in mind that in a Science like Geology, not yet fifty years old, scientific Geologists are constantly revising or retracting their theories, and I should therefore have quoted from the last edition of Lyell's work. But my mistake has no bearing against my argument. Lyell does not think that Darwin has proved his theory, but that he has made it in the highest degree probable. He regards Evolution simply as "the best explanation yet offered of the connection between man and animals." But probability even in the highest degree is but probability still. It is not demonstration.

Lest however the weight of authority against Evolution should be diminished by my inability to claim Lyell on my side, let me substitute for him the eminent professor Virchow of Berlin, who says, "We cannot pronounce it to be a conquest of science, that man descended from the ape or from any other animal. We can only indicate it as an hypothesis, however probable it may seem. Let us hope the men of science in England will not fail to examine this most serious question,—whether the authority of science will not be better served if it

confines itself strictly to its own province, than if it undertakes to master the whole view of nature by the premature generalization of theoretical combinations. We must really acknowledge that there is a complete absence of any fossil type of a lower stage in the development of man. I am bound to declare that any positive advance which has been made in the province of prehistoric anthropology has actually removed us further from the proof of such connection, viz., with the rest of the animal Kingdom." * I may add that the great Palaeontologist, Professor Barande, agrees with Virchow.

Bearing in mind that my aim was to show that Evolution was but an unproved hypothesis, let me strengthen my appeal to authority still further. Dr. Dawson, the learned Principal of McGill College, writes :—

"I regard the doctrine of spontaneous evolution of living beings, and of man especially, as equally at variance with science, revelation, and common sense. It belongs, in truth, to the region of those illogical paradoxes which have ever haunted the progress of knowledge, and have been dispelled only by increasing light. For this reason I have always refused to recognize the dreams of materialistic evolution as of any scientific significance, or indeed as belonging to science at all." †

One more authority,—the great Agassiz. His words are :—"The theory is a scientific blunder, untrue in its facts, unscientific in its methods, and ruinous in its tendency." ‡

* Leisure Hour, 1878, p. 334. † Transactions Vic. Inst., Vol. 16, p. 220.
‡ Ibid.

Here I desire to correct a mistake of my critic, in asserting that "Huxley would not claim more for the theory than Darwin or Lyell." He has forgotten that Huxley, in his lectures in New York in 1876, asserted "the *demonstrative* evidence of Evolution." In his third lecture, he maintained that "the doctrine of Evolution at the present time rests upon exactly as secure a foundation as the Copernican theory of the motions of the heavenly bodies did at the time of its promulgation." This is certainly more than Darwin or Lyell would assert, as any reader of their works knows full well.

I must now refer to the accusation against me of misrepresenting Huxley as well as Lyell, because I said that materialistic evolution was discredited by him. I fail to see how I have done so. Huxley made two statements : the first was, that he had "a philosophic faith in the *probability* of spontaneous generation"; and the second was, that "Biogenesis, or life through the action of life, i. e., the contradictory of spontaneous generation, was victorious along the whole line at the present day." * Now I cannot see how any man can believe in the probability of a fact, and at the same time admit that all experiment and induction are against it. Faith, however "philosophical," in a probability against universal experience and experiment, is not the inductive science of Lord Bacon, but rather unphilosophical credulity. I feel therefore warranted

* The law of Biogenesis is justly regarded by Professor Huxley as the great principle underlying all the phenomena of organized existence. *Vide* "Unseen Universe," p. 229.

in saying that materialistic evolution is discredited (not only in the sense of being disbelieved because unproved, but) as having been brought into disrepute by Huxley's inconsistency of statement, as well as by Sir W. Thompson's far-fetched theory of an aerolite having brought the first germs of life to this planet.

In every exact science, we reason from the known to the unknown. We infer, from what we see going on now, what went on yesterday, and backwards for ever. Thus in Geological science we see how land is laid down in the estuaries of rivers, and how mud and stones are deposited by the action of water. We see glacial action at work in the Arctic regions, in the Alps, and in other mountain ranges. The processes which we witness in action, changing the configuration of continents, we naturally suppose to have been always at work, and sometimes on a vastly greater scale than at present; that mountains have been upheaved, and again submerged, and that continents and oceans have changed places more than once. Thus, by reasoning from the known to the unknown, all the phenomena of the earth's crust are explainable, and Geology, by the help of fossiliferous strata, becomes an exact science in its general results.

Evolution, however, does not reason from the *known* to the unknown, but from a *conjecture* to the unknown. No one ever saw one species pass into another. Evolution, as accounting for the origin of species and the creation of man, has no basis in experience or experiment. It is a most ingenious

hypothesis, and, being only that, is as yet unscientific. In the historic period of 4000 years, no one has ever seen, or has had reason for believing, that one species changed itself into another by what is called natural selection. The cats and crocodiles of to-day are the same as those preserved as mummies for 4000 years ; and reasoning from the known to the unknown, it is rational to infer that they had been the same 4000 years before the Pyramids were built. Indeed it is conceded by Evolutionists that *some* species have been so persistent that fossil lizards of the age of the New Red Sandstone are found to-day crawling about in New Zealand. Charles Kingsley calls these Sphenodons the oldest conservatives in the world, who have remained all but unchanged while the whole surface of the globe has changed around them once or twice. * Sir Roderick Murchison tells us that the bivalve called the *Lingula* has lived on from the Silurian or primæval days to the present time in Wales. So that this genus has remained unevolved from well nigh the beginning of animal life. Huxley says that "there are found remains of animals in perfect preservation and among them shells belonging to exactly the same species as those which at present inhabit the waters of Lake Erie in the immediate vicinity of the whirlpool of Niagara, and again upon Goat Island. This involves the conclusion that they had lived and died before the Falls had cut their way back, and indeed it has been determined that when these animals lived, the Falls must have been at

* Town Geology, p. 95.

least six miles further down the river than they are at present, that is, about 30,000 years ago." Moreover, Huxley admits that "when we examine rocks of the Cretaceous epoch, we find the remains of some animals which the closest scrutiny cannot show to be in any important respect different from those that live at the present time." He adds, "Even among the higher animals, some types have had a marvellous duration. In the chalk, for example, there is found a fish belonging to the highest and most differentiated groups of osseous fishes which goes by the name of *Beryx*, which is represented at the present day by closely allied species in the Atlantic and Pacific Oceans. We may go still further back. The Carboniferous formations in Europe and America contain the remains of scorpions in an admirable state of preservation; and those scorpions are hardly distinguishable from such as now live." Again, "The same truth is exemplified if we turn to certain great periods of the earth's history,—as, for example, the Mesozoic epoch. There are groups of reptiles, such as the *Ichthyosauria* and the *Plesiosauria*, which appear shortly after the commencement of this epoch, and they occur in vast numbers. They disappear in the chalk, and throughout the whole of the great Mesozoic rocks they present no such modifications as can be safely considered evidence of progressive modification."

Now what are we to infer from these admitted facts? Surely, reasoning from the known to the unknown, we come to the conclusion that *all* species

are persistent in type, unless we can see one species passing into another by various stages and gradations, so that the process of metamorphosis is evident. "But no transformist can show any species gradually losing its peculiar characters to acquire new ones belonging to another species, and thus transforming itself. However similar the dog may be to the wolf, no one has found any dead or living animal or skeleton, which might as well be ascribed to wolf as to dog, and therefore be considered as the link between the two. One may say exactly as much concerning the extinct species; there is no gradual and imperceptible passage from one to the other."

Evolutionists are thus driven to explain the *persistence* of some types which is admitted by all, and the supposed *transformation* of others which is denied by all but Evolutionists; and they do so very ingeniously, but not convincingly. The hypothesis, or guess, is that, no matter what variations in them may have taken place in the lapse of epochs, there was no permanent change of structure, because the surrounding conditions were always such that the parent forms were more competent to deal with them than the derived forms; that in the struggle for existence, the parent form maintained itself, and the derived forms were exterminated. But a difficulty arises here. How came it to pass that these derived forms which arose spontaneously (that is, by chance) escaped being fossilized? Did they, as if *lusus naturæ*, revert to the parent type immediate-

ly while yet two minute to be discernible, and before Geology could stereotype them? One would suppose that we ought to find in the rocks variations from the parent type lying side by side with the original from which they sprung. But no such variations, small or great, are to be found. Moreover, we are asked to believe that some forms have continued unchanged during the transformation of three or four worlds, *because* that, during all the changes and chances of those countless ages, they were unable by means of natural selection to find conditions of life more favourable than those by which they were originally environed; and that they held their own, while thousands upon thousands of other types were being extinguished, because in their case there was no possibility of improved conditions of life.

It is said, however, that Evolutionists *do* reason from the known to the unknown,—that they reason from the known possibility of producing permanent varieties in animals by artificial selection to the possibility of the same being effected by natural selection. Huxley gives an instance of this:—A Massachusetts farmer possessed a small flock of sheep and a ram of the ordinary kind. One of the ewes presented her owner with a male lamb differing for no assignable reason from its parents by a proportionably long body and bandy legs, whence it was unable to emulate its relatives in those sportive leaps over the neighbours' fences in which they were in the habit of indulging. The farmer bred from

the newly arrived type, and the result justified his anticipations. When sufficient Ancon, or Otter, sheep (as they were called) were obtained to interbreed one with another, it was found that the offspring was always pure Ancon sheep. From this it is argued that what the farmer did by artificial selection, the struggle for existence does by natural selection. But the analogy does not hold; because what the farmer produced was not a new species, but a variety in a species; the new sheep were sheep still, not goats or horses. What was effected by the farmer could not have been brought about by natural selection, first, because the long body and bandy legs would not have been beneficial, but rather injurious, in the struggle for existence with the sheep's more active companions. Secondly, because all artificial varieties in our herds of cattle, in our horses, dogs, and pigeons, when left to themselves,—that is to nature,—revert to the original type. Thirdly, because all artificial varieties produced by man are fertile and interbreed with one another, while species produced by natural selection are infertile and will not interbreed. There is nothing in artificial selection akin to what Evolution teaches, viz., that all species are descended from the same original, and that there are links connecting them all, even the carnivorous with the herbivorous animals. Fourthly, because the slow transformations by means of which any creature, while in a state of unfitness for one mode of life, is passing on to the development of perfect fitness for another, would not conduce to the survival of the

fittest, but the reverse. The condition of an infant while teething, that is, passing through the transition state from nursing to eating, does not, as all mothers know, conduce to its survival.

Professor Huxley, however, gives us what he calls *demonstrative* evidence for Evolution,—evidence as clear, he says, as that for the Copernican theory. He has traced the horse of the present day through the *Hipparion* of the Pliocene age, and through the *Anchitherium* of the earlier Tertiaries. His hypothesis is, that the horse must have been derived from some quadruped which had five complete digits on each foot. He traces the succession of the forms of the horse's legs and feet from the top to the bottom of the Tertiary strata, and he finds that the observed facts fit into the theory. First, we have the true horse; next, the Pliocene form of the horse, slightly differing from the ordinary horse. Lower down we come to the *Protohippus* with one large digit and two small ones on each foot. Further down we come to the *Miohippus* with three complete toes and a rudiment of a digit which answers to a man's little finger. Next we arrive at the *Mesohippus* in the American Miocene formations, with three toes in front, a large rudiment representing the little finger, and three toes behind. Lower still, in the Eocene formation, we have *Orohippus* with four complete toes on the first limb and three toes on the hind limb. The Professor tells us that when still lower deposits have yielded up their remains of ancestral equine animals, we shall come at last to the five-toed animals in which, if the doctrine of

Evolution be well founded, the whole series must have taken its origin.

This then is the highest evidence adducible. Huxley calls it as demonstrative as the Copernican theory. And yet there is a simple answer to this so-called demonstration, viz., that it is based on the assumption that all these extinct forms belong to the same species. But Professor Owen, in his *Anatomy of Vertebrates*,* says, "These extinct animals differ from each other in a greater degree than do the horse, the zebra, and the ass, which by Professor Huxley are acknowledged to be true species." Again, the evidence is not to be depended upon, because remains of the horse, in nearly every respect resembling the wild horse of to-day, are found in the upper Miocene formation, and remains of the *Hipparion* are found in the same deposit; proving that the *Hipparion* could not have been the ancestor of the horse. †

Another objection to drawing conclusions in favour of Evolution from this supposed development of the horse is, that the whole account is inconsistent with what Huxley tells us an imaginary spectator of the events which constitute the history of the earth would have seen. He says, "Preceding the forms of life which now exist, our observer would see animals and plants, not identical with them, but like them, increasing their differences with their antiquity, and at the same time becoming simpler and simpler." But in the case of the horse, the

* Vol. III, p. 792.

† Transactions Vic. Inst., Vol. 16, p. 277.

development is not from the simple to the complex, but the reverse,—from a five-toed to a one-toed animal. The evolution must have followed the law of natural selection, and the five-toed animal must have found it beneficial in the struggle for existence to get rid of one toe, and the four-toed to divest itself of another, and so on till we come to the present horse. "It is," says Mr. Wallace, "a fundamental doctrine of Evolution that all changes of form and structure can only be brought about in as much as it is for the good of the being so modified." We cannot, however, see how this evolution of the horse's legs and feet, or rather this degradation and shrivelling up brought about by the struggle for existence, could have been profitable to the preserved animal. He lost the power of seizing hold of any thing,—a serious loss in a struggle !—but however this may be, this accumulation of profitable modifications did not prevent the horse from becoming extinct in America. The extinction may, it is true, have been caused by the glacial period having destroyed all horses ; and if not from that cause, we must admit that Nature failed to adapt the horse to its environments.

On the whole, it would have seemed much more like what we mean by Evolution, had the horse of the present day been found in the Eocene formation and developed upwards through the Miocene and Pliocene into a horse with five toes. That would have looked more like development from the simple to the complex.

But I am concerned with the doctrine of Evo-

lution only so far as it is used as a device to eliminate God from the Universe. My critic says, "The scientific world is not aware that Nature has any ends in view, or is capable of having any ends in view which she needs the help of man to enable her to realize. Science does not attribute purpose to Nature." This is a very dictatorial utterance. Let us consider it awhile. Mankind will not, because they cannot, give up their belief in purpose, design and foresight in Nature. Why? Because the alternative belief is that "the earth and the million spheres in space came from mechanical necessity and for no end, and that life and consciousness came from the same mechanical necessity, supplemented by chance as the acting, shaping agency and real divinity."* For this reason, the mass of mankind guided by common sense, as well as the masters of thought who have meditated most deeply on the subject, continue to believe in purpose and final cause.

Aristotle, with the other great thinkers of his day, came to the conclusion that the intelligence which existed in connection with matter involved a higher Intelligence independent of matter.

Cicero held that the man who believes that the world, with all its beauty, and fittedness for man as well as for animal and vegetable life, was made by the chance meeting of atoms, would believe that if a countless number of the letters of the alphabet were

* Creed of Science, p. 51.

thrown in a mass in some place, from these letters shaken out on the ground there can be formed the annals of Ennius arranged in such order as to read continuously. †

Lord Bacon declared : "I had rather believe all the fables in the Legend and the Talmud and the Alcoran, than that this universal frame is without a Mind."

Sir Isaac Newton affirmed : "The world is not God. It did not arise from a fortuitous concourse of atoms, nor by the spontaneous energy and evolution of self-developing powers, as some have affirmed, but it was created by one, almighty, eternal, wise, and good being,—God."

The great Kepler, as he watched the skies, was compelled to exclaim : "O God, I think Thy thoughts after Thee."

Whatever, then, may be the causes which render some men unable to see purpose or design, and consequently God, in the Universe, of one thing we may be absolutely sure, that *superiority of intellect* is not one of them.

But it would be tedious to dwell longer on the philosophical authority for purpose in Nature. Apart altogether from that, can any rational or candid man doubt that there was a purpose in the course of the evolution of the Universe? Can any one really doubt that the eye and the ear, which open out the world to all the animals and man, were not somewhere in Nature's aims ; or can they

† De Natura Deorum.

believe the other alternative, that the first rudimentary eye came one day as the result of a lucky chance,—a fortunate meeting of the atoms,—that it only appeared after infinite combinations had in vain been tried, at one happy moment when the right number and due arrangement of particles were hit upon? Is this credible? And then the same origin must be assigned for all the other organs of sense,—the origin of chance,—a perpetual shifting and re-arrangement of the atoms by chance and mechanical necessity, till the new and startling phenomena appeared.

And granting that the right arrangement made the physical organ, there is still a great gulf between the organ and the seeing power. What is this new phenomenon,—the fact of *vision*,—which one moment came, having been non-existent just before? Is not this new thing something like creation? It is, says the materialist, the product of the atoms, the effect of molecular changes. Then the atoms are literally creative. They have produced from nothing a most wonderful thing. For the fact of vision is wholly different from the material particles which compose the organ. It is a thing not made up of them, nor of anything but itself, which one moment *was not*, and the next moment *was*; and this is *creation*,—call it *evolution* if you please. It is creation, and moreover it is very like creation *ex nihilo* pronounced so absurd,—only that the blind atoms, according to the materialist, have accomplished the miracle. *

Now all this weight of philosophical authority,

* Creed of Science, p. 48.

and this reasoning from common sense, cannot be set aside by the flippant *dictum*, "Science does not attribute purpose to Nature." This means, if it has any meaning, that scientific men do not attribute purpose to nature ; but the assertion is untrue. Or it may mean that no science, such as Botany, Geology, or Astronomy, attributes purpose to Nature. True, these sciences have neither speech nor language, yet their voices must be heard. Let us select from a multitude of instances, which in their number and their richness are embarrassing, one from Botany, and see whether we can detect purpose in the adaptation of structure to function.

A more wonderful, complicated, and effective insect-trap could hardly be imagined than the pitcher-plant. In the first place, it attracts its victims from afar by its conspicuous color,—red, or blue, or purple,—which makes it stand out boldly from the inconspicuous shrub which produces it. In the next place, its jug-like shape is as good a device as can be employed for a trap in which the captured flies are to be drowned. It has a close-fitting lid which is not opened till the arrangements are complete, and when once opened never shuts again. When all is ready within, the lids opens ; and we see a bait, a danger, and a destiny. The bait is a honey secretion produced by glands situated just in the neck of the pitcher. Below this zone are glaucous walls of glassy smoothness, and below these again is the water poured forth by thousands of glands. The insects eat their fill of the honey, then slip hopelessly down the precipitous

sides, and are drowned at the bottom. In addition to these striking features, some of the pitchers have external fringes calculated to lead insects the right way to destruction.*

Now can any reasonable man deny that the purpose, the design of the pitcher-plant is to kill flies ? Or can any rational being imagine that it was evolved by the blind chance of the concurrence of atoms, or that the plant made itself ? And if the mind designing this adaptation of structure to function does not exist *inside* the plant, surely it must be somewhere *outside*.

Such illustrations are omnipresent in nature ; but let us select another striking one. In South America there is a strange plant, a species of club-moss, endowed with very remarkable properties. In the dry season, when every particle of moisture is extracted from the soil, it is detached from its growing place, rolled up into a ball and carried away by the equinoctial gales, often to a very great distance. It remains rolled up in this form for a considerable time ; but if carried to a marsh or any other moist place, it begins slowly to unfold and spread itself out flatly on the soil, assumes its former vigour, takes root, develops its fructification, and casts abroad its seed upon the air. When this new situation is dried up, it resumes its old unsettled habits, and like an adventurous pilgrim takes advantage of the wind to emigrate to a more favourable locality.† Here we see plainly purpose and design. Did the plant design itself, or was chance its architect ?

* *Vide* Transactions Vic. Inst., Vol. 17, p. 89.

† Bible Teachings in Nature, p. 215.

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The wealth of illustration of purpose in the Animal Kingdom is so great that it is hard to select one from it. One of the most striking, however, is the marsupial modification by means of which the mother is enabled to feed and carry her offspring with her in the long migrations necessitated by the scarcity of water. The greatest living authority on Comparative Anatomy, Professor Owen, says, † "The correlated modifications of maternal and foetal structures, designed with special reference to the peculiar conditions of both mother and offspring, afford, as it seems to me, irrefragable evidence of creative foresight."

I must now speak of some strange perversions of my argument when I spoke of the necessity of obeying laws of nature, and as a consequence abolishing all hospitals for the idiot and the insane, the blind and the dumb. What I meant and said was that if "survival of the fittest" be a law of nature, we should imitate and help nature, as we do in sickness by nurse-tending, and in gardening by pruning and weeding. On evolutionary principles, I hold that it is plainly intimated to us that if we desire the perfection of our race, we ought to do *artificially* what Evolution does *naturally*, and let the unfit perish,—that is, allow all deformed and imperfect specimens of our race, and all tainted with the germs of heredi-

† "When the helpless progeny is first presented to the nipple, it is utterly incapable of the muscular effort of sucking; the mother is therefore furnished with a muscle which presses the nipple and causes the milk to flow. The act of swallowing, however, might not always take place at the same instant as the injection, and the throwing of the fluid into the wind-pipe might be fatal. This danger is provided for and obviated by an express contrivance: the air-passage is completely separated from the throat, and the milk passes down in a double stream on each side of the larynx into the stomach."—Gosse's *Zoology*, Vol. I, p. 125.

tary disease, to die ; because "the law of heredity is such that a microscopic portion of seemingly structureless matter contains such an influence, that the resulting being shall fifty years after become gouty or insane."

Evolutionists do not like this logical deduction from their principles ; and so they justify the existence of hospitals and asylums for those "smitten with cruel and hopeless maladies,"—how think you ? Because, forsooth, if we let those so smitten perish, the world might lose a genius or two in a century ! Or, because it is well for us to have occasional examples of "fortitude and resignation" before our eyes,—as if "resignation" were not an utterly unmeaning word in the mouth of an Agnostic ! If we wait till such motives as these influence men to build and endow hospitals, we shall wait till doomsday.

Herbert Spencer says, "The uniform principle has been that better adaptation shall bring greater benefit ; which greater benefit, while increasing the prosperity of the better adapted, shall increase also its ability to leave offspring inheriting more or less the the better adaptation." * I repeat therefore that on Evolution principles, if we could so manage it that those best fitted for their surroundings should survive, and that the members of our race should become more and more adapted to the conditions of life, we should be conferring the greatest boon on mankind ; and as the ancients tried to bring about this result by destroying all puny and superfluous

* Data of Ethics, sec. 60.

infants, so all Positivists and worshippers of Humanity should do the same, so that eternal progress should be the law. For in spite of all that has been said about Evolution not requiring this constant progress and improvement of our race, its fundamental principles are,—that there has been progression from the primitive protoplasm through type after type to the highest of all—man ; that no variation caused by nature ever became permanent unless for the good of the animal or plant ; that the same forces that were at work in ages past are now working in the same way as ever ; and that Man is destined to reach a higher type than his present one, unless we adopt the theory that Evolution, having reached Man and the Elephant, then stopped short, and quitted the stage of the Universe.

To my contention that laws of Nature, if they be really such, should be listened to and obeyed, the following pleasantries are no answer. It is asked, "When a conflagration rages, do we obey and co-operate with Nature by adding fuel to the flames ? When pestilence is abroad, do we try to increase its deadly activity ? When we stumble, do we make a point of yielding to the law of gravitation and throwing ourselves headlong ?" These foolish questions are based on the supposition that all laws of nature are positive, whereas some are negative. Some say, "Thou shalt" ; others, "Thou shalt not." Some command, others forbid. When our property is on fire, we *do* see a law of nature at work,—the law by which carbon and oxygen combine to form fire ; and the knowledge of this law *forbids* our call-

ing it into operation so as to burn our houses, and *commands* us to use it in cooking our food. Pestilence is *not* a law of nature, but the result of *disobedience* to laws of nature, especially sanitary laws, which we do well to obey. To throw ourselves headlong when we stumble is not to obey, but to disobey, the law of gravitation, which warns us against stumbling.

Indeed it seems to me that Agnosticism itself is a resultant of disobedience to the laws of Nature. Thus when my mind meditates on itself, and on minds superior to itself, I am led on till I reach what seems to me the highest of human minds ; and then I find that highest describing itself as only a child gathering pebbles on the shore of the Ocean of Truth ; and so I cannot help soaring to a recognition of mind above mind, till necessity compels me to take refuge in Infinite Mind. And this is not the playfulness of fancy or imagination. It is as much a part of my nature as my consciousness, my appetites, or my memory. Were I to resist the process by means of which I am drawn to recognize an Infinite Mind, I should be disobeying a law of my nature as much as if I resisted memory, or struggled against a belief in my own identity. I should be brought to the awful standstill of intellectual confusion ; for I can no more help coming to recognize Infinity in connection with mind, than Infinity in connection with space or time. I cannot conceive a point beyond which there is no space or no time ; and yet we are gravely told that this law of Nature is as absurd as "one horse exceeding

another in size or strength leading to a belief in an infinite or supreme horse." Who but an Agnostic would think of reasoning from *mind* in the abstract to a *horse* in the concrete? Just as if intelligence and a horse were synonymous terms, and material size and strength constituted intelligence! Assuredly, if the horse's mind were constituted as man's is, and he could see one equine intelligence exceeding another as man sees human intelligence, the horse would come to the same conclusion as man; and all this means, if a horse were a man—not a very solid foundation on which to build an argument!

To sum up: Since we cannot imagine a mind arriving at that point beyond which there is none higher, we must come to the conception of Infinite Mind—God. And Agnostics partly admit this; for it is said, "If we see signs of an intelligence higher than the human, we have simply to acknowledge the fact." The great difference between us is that *they* do not see this Higher Intelligence in the Universe,—*we* do.

All my reviewer's dissertation on Intelligence is irrelevant, as he treats of it as a *condition of mind*, whereas I spoke of it as *mind itself*. If in each of the questions he asks concerning intelligence and its creator, the world, we substitute Mind and Matter respectively, the questions will show their own absurdity:—It is asked, "Does it follow, because the world by the variety of its appeals to consciousness creates intelligence, that intelligence must have created the world?" which being interpreted

means, Does it follow that, because matter makes mind, mind makes matter? The question is therefore a *reductio ad absurdum*. Again, we are asked, "Because the grindstone gives sharpness to the axe, does it follow that the sharpness of some greater axe made the grindstone?" In this question, the presence of intelligence, or mind, is conveniently left out, and therefore is absurd, as not bearing on the subject under discussion. Suffice it to say, that if we could see an intelligent grindstone going about sharpening axes, we should argue that reason points to a higher mind to account for the existence and adaptation of both the grindstone and the axe.

But we are told that "we can recognize works of human intelligence because they stand out distinct from unorganized nature." We have something wherewith to contrast them, viz., "the raw materials furnished by nature." In the case of the works of Infinite Intelligence, or Mind, we have nothing wherewith to contrast them; they don't stand out distinct from unorganized nature. Now it is quite true that the works of Infinite Mind do not stand out distinct from unorganized nature, because there is no such thing in existence as unorganized nature. The very atoms are complex and manufactured. It is very true that we cannot contrast the works of Infinite Mind with the raw material of which they are made, because human science has not yet discovered the ultimate structure of atoms and molecules. But for all that, the works of Infinite Mind stand out in bold relief as contrasted one with another, whether they be revealed to us in

the telescopic or the microscopic universe. "The sea is His, and He made it"; and it stands out in as well defined contrast to the oxygen and hydrogen of which it is composed, as does a cathedral to the quarry. In neither case was raw material used, because both the gases and the stones were manufactured articles.

The great difference between the works of an Infinite and a finite mind is this (and it is urged as an objection),—that the works of the Infinite are universal and unlimited; those of the finite, partial and limited. That is to say, because the evidence of Infinite Mind is omnipresent, it is not present; because it is everywhere, it is nowhere; because we cannot point it out in particular, we cannot point it out at all; and therefore its very universality compels us to deny its existence. The Universe is so crowded with proofs of intelligence, like a multitude of rays bent to one focus, that *therefore*, it is said, there is no proof of an universal Intelligence. We have but to state such reasoning in order to refute it.

We are informed by Agnostics what are the terms or conditions on which they will admit the evidence of Infinite Mind. It is said, "Give us the same means of affirming intelligence in the case of the eye, the ear, or the hand, that we have in the case of the watch; show us first where a Power not elsewhere exemplified in the Universe steps in, and it sufficeth us." This is equivalent to saying, Show us a *miracle*, and it sufficeth us. This, it seems to me, *can* be shown. The bringing in or creating of new things,

or a break in the continuity of nature, is our general notion of a miracle. Now it is a determinate fact of exact science, proved by the law of the dissipation of energy "as certainly as a mathematical demonstration, that the present order and laws of nature, if left to themselves, must end in the entire Universe arriving sooner or later in a state of death,—of absence of all motion, physical and vital." Professor Thompson has well pointed out that a process of degradation cannot be eternal. If we could view the Universe as a candle not lit, then it is perhaps conceivable to regard it as being always in existence. But if we regard it, as we must, rather as a candle that has been lit, we become absolutely certain that it cannot have been burning from eternity, and that a time will come when it will cease to burn. *

If it be thus certain that the Universe, if left to itself, must have an end, it is equally certain that it must have had a beginning. In other words, something outside Nature and her laws has interfered in times past, and will again interfere in time to come. † Here, then, was a miracle,—“an instance of a Power not elsewhere exemplified in the Universe stepping in.” There was a break in the continuity of nature when the visible Universe was produced from the invisible ; though, on Agnostic principles, it seems incongruous to use the words visible or invisible in relation to the Universe at its original production, because no earthly eye had as yet been evolved, and the Eye of GOD did not exist.

* Conservation of Energy.—Stewart. † Professor Haughton's Sermon in Montreal.

Again, there was a break in the continuity of nature when a power stepped in at the original production of life. That dead matter cannot produce a living organism is the universal experience of the most eminent physiologists. The law of Biogenesis,—that a living thing can only be produced from a living thing,—is regarded by Huxley and others * as the great principle underlying all the phenomena of organized existence. The introduction of original life on this planet is therefore another instance of “a Power not elsewhere exemplified in the Universe stepping in.”

Another illustration of the interference of this Power is found in the creation of vision ; for be it remembered that the fact of vision is quite a distinct thing from the mechanism of the *eye*, or the undulation of *light*. That man of common sense and real science too, the great John Hunter, saw that the eye did not make itself, nor man make it, nor his parents, nor any other man. Yet it was made by One Who understood the transmission, reflection, and refraction of light ; how to make lenses of different powers, adjust them for clear perception of near or distant objects ; how to make and use most ingenious mechanical contrivances in order to turn the eye in every direction, and increase or diminish light ; how to place the eye so as to be of most service, protected from injury, moistened from time to time, and able to open and shut. Common sense is sure that Intelligence made the eye, † and Darwin confesses that to suppose the eye could have been formed

* Unseen Universe, p. 229. † Supernatural in Nature, p. 13.

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But whether the eye was created or evolved, the moment vision resulted from the joint action of the mechanism of that organ and of the brain, under the influence of the undulation of light, a Power had stepped in as a Creator ; and again, according to Wallace and his school of Evolutionists, this Power stepped in once more at the original production of man.

To draw to a conclusion,—I hope my hearers will not think that the topics I have brought before them are unsuited to this place or to this day. The Christian's Book is full of texts which my words are intended to enforce. "He that made the eye, shall He not see ?" "It is He that hath made us, and not we ourselves." "Consider the lilies and the ravens." "The heavens declare the glory of God." "I will consider Thy heavens, the work of Thy fingers ; the moon and the stars which Thou hast ordained." These passages need enforcement from the pulpit. We should sing the *Benedicite*, not only with the spirit, but with the understanding also. I do not therefore apologize for calling attention to "the works of the Lord, praising and magnifying Him for ever."

And let me add, before I conclude, that in a controversy with those that say, "There is no God,"—or, which comes to the same thing, that they do not know whether there is a God or not, and that it does not matter,—I have nothing but the kindest

† Origin of Species, p. 156.

feelings towards involuntary Agnostics ; but it is hard to bear with blatant and aggressive ones. The issue is too serious in a moral, social, and political point of view ; for I agree with that robust intellect, Thomas Carlyle, who says, "The Agnostic doctrines are to all appearance like the finest flour from which you might expect the most excellent bread ; but when you come to feed upon it, you find it is powdered glass, and you have been eating the deadliest poison." But we have grounds for believing that the poison is finding its antidote. There are indications that materialistic Evolutionists are about to modify, or reconstruct, their scientific guesses. The last utterance of the High Priest of Agnosticism, Herbert Spencer, is a step in the right direction. He says, "Amid the mysteries, which become the more mysterious the more they are thought about, there will remain the one absolute certainty,—that he is ever in the presence of One absolute and eternal Energy from which all things proceed." But surely Mr. Spencer cannot rest here. He cannot be satisfied, now that he has arrived at the conclusion that there is an Infinite, Absolute, and Eternal Energy, from which all things proceed, let loose in the Universe. He must go on to ask, Is this Energy without aim or direction ? Is it under control ? Is it beneficent, or maleficent ? Is it governed by wisdom, or by chance ? We know something of the awfulness of the effects of finite energy, or force, in the volcano, the hurricane, and the lightning. But who can gauge the results of Infinite Energy without aim or control ?

The result of such questionings must be the answer,—that Infinite Energy is guided by Infinite Wisdom, and Infinite Goodness ; and so we reach the First Article of the Christian Creed by means purely scientific, and we “believe in God the Father Almighty, Maker of Heaven and Earth.”

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